1981

Financial Analysis of a Group of Petroleum Companies

by **Patrick J. Keenan,** *Vice President*
Richard S. Dobias, *Second Vice President*
Norma J. Anderson, *Associate Financial Analyst*

Energy Economics

Companies Included in Study

Amerada Hess Corporation
Ashland Oil, Inc.
Atlantic Richfield Company
The British Petroleum Company Limited
Champlin Petroleum Company
Cities Service Company
Compagnie Francaise des Petroles
Conoco, a Sub. of DuPont
Exxon Corporation
Getty Oil Company
Gulf Oil Corporation
The Louisiana Land and Exploration Company
Marathon Oil Company
Mobil Oil Corporation
Murphy Oil Corporation
Petrofina Societe Anonyme
Phillips Petroleum Company
Royal Dutch/Shell Group of Companies
Standard Oil Company of California
Standard Oil Company (Indiana)
Sun Company, Inc.
The Superior Oil Company
Texaco Inc.
Tosco Corporation
Union Oil Company of California

This study is based on data secured from annual reports to stockholders and to the Securities and Exchange Commission and on information developed from other sources. Energy Economics of The Chase Manhattan Bank wishes to thank the companies and individuals who have cooperated in supplying special information and material used in this survey.

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Energy Economics
The Chase Manhattan Bank, N.A.
1 Chase Manhattan Plaza, New York, N.Y. 10081

Foreword

For many years The Chase Manhattan Bank has conducted a detailed study of the financial performance of a large number of petroleum companies. Because the combined operations of these companies constitute a major proportion of the worldwide activities of the petroleum industry, their combined financial performance provides a valuable basis for determining the probable experience of the over-all industry.

As a service to the petroleum industry, and all others with a related interest, the Bank has published annually since 1945 the summarized results of this study.

The companies included in this study are the 25 organizations listed on the adjoining page. Throughout the report they are referred to collectively as the "Group." Over the years the number of companies comprising the Group has changed as a result of additions or mergers. Data for earlier years have been adjusted to reflect major changes and thereby permit valid comparisons of current developments with those of the past.

Operations

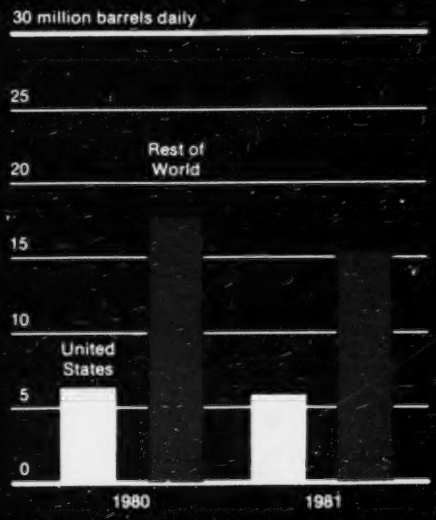
Source of Crude Oil

The continuing worldwide economic downturn, substitution of other energy forms, and a general effort toward more efficient use of oil products all contributed to a reduction in the demand for refined products during 1981. This lower product demand and the overall reduction by the industry of crude oil and product inventories, led to a reduction in the Group's crude oil requirement. For the year, the volume of crude oil derived from the Group's own production and purchases from state-owned oil companies declined from 1980 by 2.5 million barrels per day to an average of 21.3 million barrels daily. That volume represents about 51 percent of all the crude oil produced in the non-Communist world in 1981, down slightly from 53 percent a year earlier, but down more significantly from 56 percent in 1979 and 61 percent in 1978.

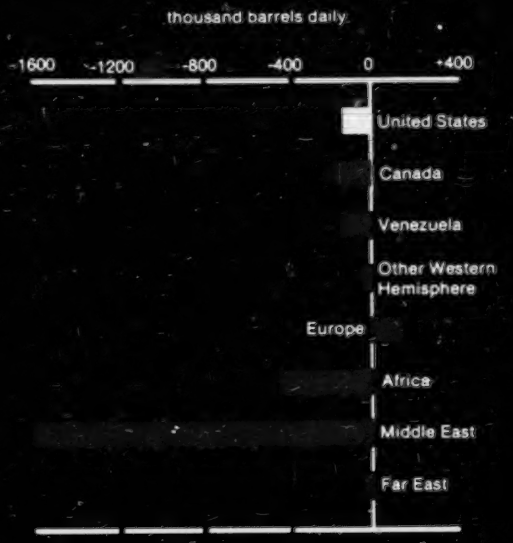
Except for a slight increase in Europe, each of the other oil-producing areas recorded reduced supplies of crude oil to the Group. The largest decline was registered in the Middle East, as the volume from that area dropped on average by 1.6 million barrels per day to 8.5 million. Despite that sizeable reduction, the Middle East remained the primary source of crude oil for the Group, providing 40 percent of the total. Africa recorded the next largest reduction—467 thousand barrels a day—to a level of just under 1.8 million barrels daily. Together, the Middle East and Africa accounted for 82 percent of the overall reduction in the supply of crude during 1981.

In the United States, which is the Group's second largest source of crude oil, a decrease of 139 thousand barrels per day reduced the average daily supply to 5.9 million barrels. Although Canada and Venezuela are not large volume suppliers of crude oil to the Group, their declines from 1980 levels of 198 and 170 thousand barrels daily resulted in significant reductions of 19 and 26 percent, respectively. The Other Western Hemisphere area provided 526 thousand barrels per day, 48 thousand a day less than the year before. The smallest reduction, averaging 32 thousand barrels daily,

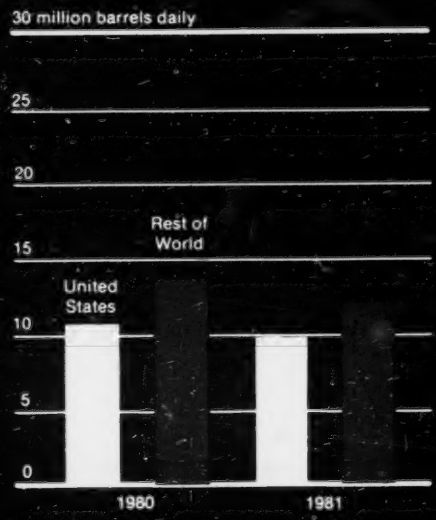
SOURCE OF CRUDE OIL



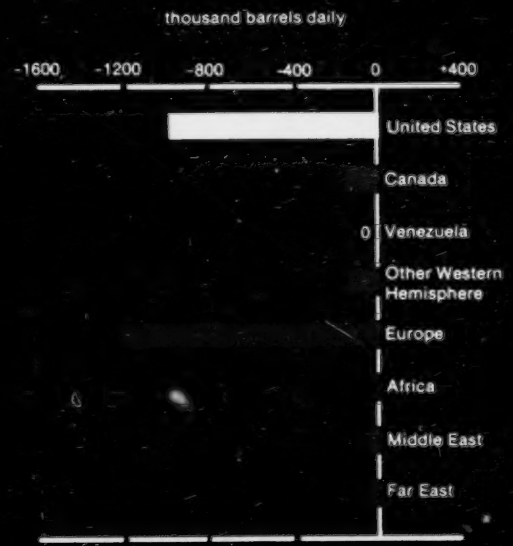
CHANGE FROM 1980



REFINERY RUNS



CHANGE FROM 1980



occurred in the Far East, lowering the volume from that area to 1.3 million barrels per day.

Additional production from the North Sea increased the Group's average daily output in Europe by 127 thousand barrels, to 1.8 million, moving Europe past Africa as the Group's third largest supply source, after the Middle East and the United States.

Crude Runs to Refineries

The lower demand for refined products was reflected in a sizeable reduction in the volume of crude oil processed. During 1981, the Group's crude runs declined by a daily average of more than 2.7 million barrels to 21.9 million. At that level, the Group accounted for just about half of all the crude oil processed in the non-Communist world, continuing the downward trend from 53 percent in 1980, 56 percent in 1979, and 57 percent in 1978. The 1981 decline of 2.7 million barrels per day in crude runs, along with a decrease of 2.8 million barrels a day in 1980, has resulted in a sharp reduction of 20 percent in the volume of crude oil refined by the Group in just that two-year period.

Each of the geographic areas recorded decreases in refinery throughput during 1981. As was the case the year before, the greatest declines were experienced in Europe and the United States. These two areas together accounted for about 80 percent of the overall throughput reduction, as they did in 1980. The largest decrease in 1981 was registered in Europe, where crude runs dropped by 1.2 million barrels per day to 6.2 million. In the United States, refinery intake of crude oil dropped to 9.9 million barrels on an average daily basis, 1 million less than a year earlier.

The Far East is the Group's third largest refining area. Compared to the United States and Europe, which had reductions of 9.2 and 16.7 percent, respectively, the decline in the Group's Far East refinery runs during 1981 was relatively small, down by only 2.7 percent, to 2.6 million barrels a day. In Canada and in the Other Western Hemisphere area, crude runs declined to a level of around 1.4 million barrels per day. The remaining two areas, Africa and the Middle East, together accounted for less than 3 percent of the Group's 1981 crude runs, with neither sector having volume reductions exceeding 100 thousand barrels a day.

Income Statement

Revenues

The Group's gross operating revenue rose by $41.7 billion in 1981 to $632.3 billion, 7.1 percent more than a year earlier. Crude oil and refined products sales, representing 84.4 percent of operating revenue, amounted to $533.7 billion, $35.2 billion (7.1 percent) more than in 1980. Chemical products sales, which accounted for 5.5 percent of operating revenue, declined in 1981 by $3.8 billion (9.8 percent) to $35 billion. Proceeds from the sale of natural gas, which represented 4.7 percent of total operating revenue, up from 3.9 percent in 1980, rose by $6.6 billion (28.8 percent) to $29.7 billion. Revenue from miscellaneous other operations generated $33.9 billion, $3.6 billion (12 percent) more than the previous year.

From non-operating sources such as interest, dividends and equity in affiliated companies' earnings, the Group received $13.3 billion, nearly $1 billion (7.8 percent) more than in 1980. Total 1981 revenue, therefore, from both operating and non-operating sources rose by $42.7 billion (7.1 percent) to $645.6 billion.

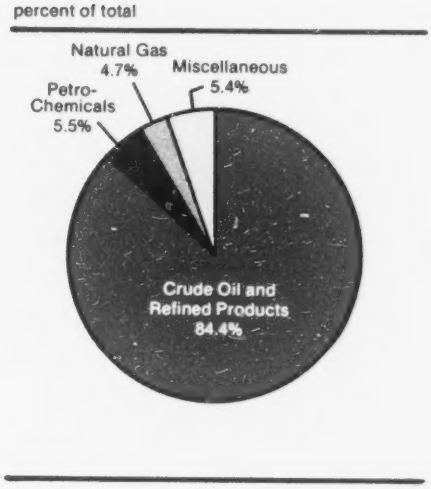
Charges Against Revenue

The $42.7 billion growth in revenue, however, was not sufficient to cover the growth in costs, since total expenses charged against revenue rose by $48.5 billion. During 1981, the Group's operating costs increased by $36.5 billion and totaled $498 billion. Operating costs reflect the day-to-day expenses incurred in doing business and include, among other items, the cost of crude oil.

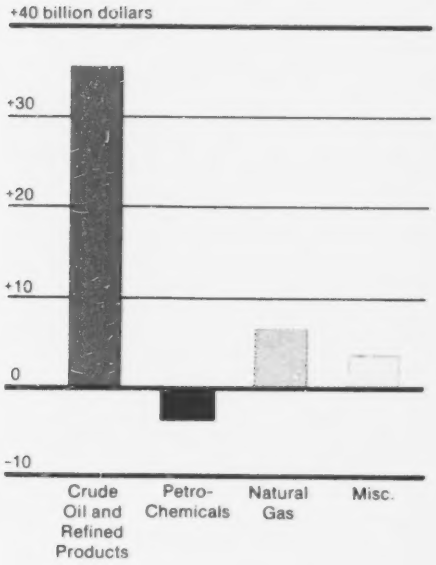
As a result of a considerable expansion in capital investments in recent years, write-off provisions for the recovery of capital, such as depreciation, depletion and amortization rose substantially to $27.1 billion from $22.7 billion a year earlier. A greater reliance on borrowed funds as well as the higher cost of borrowing caused interest expenses to increase by over $1.6 billion (27.2 percent), to $7.7 billion.

After surging by a record $9.2 billion in 1980, taxes other than income taxes rose even more sharply in 1981, by $14.7 billion to a level of $39.3 billion. Thus, in just two years, the

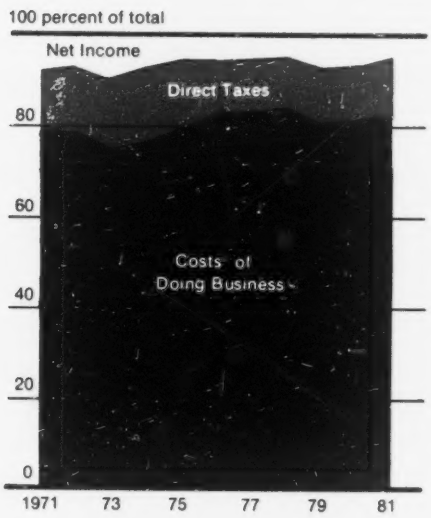
SOURCES OF REVENUE— 1981



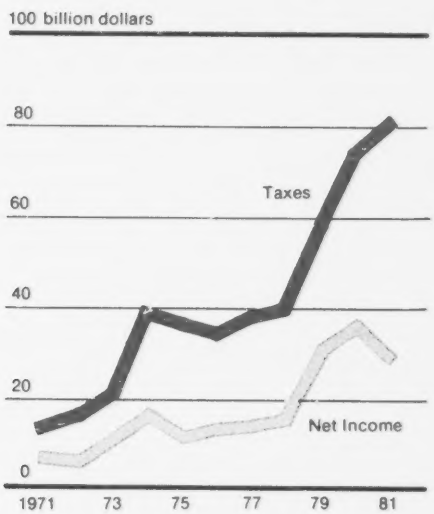
REVENUE CHANGES IN 1981



COSTS, DIRECT TAXES AND NET INCOME AS PERCENT OF GROSS OPERATING REVENUE



NET INCOME IN RELATION TO TAXES



Group's tax payments, not including income taxes, soared from $15.5 billion in 1979 to over $39 billion in 1981. This dramatic rise primarily stems from a federal excise tax levied on the petroleum industry in the United States starting in March, 1980 and labeled "The Windfall Profits Tax."

After deducting from revenues all expenses except income taxes, the Group was left with a pre-tax income of $71.6 billion, $13.9 billion less than the previous year. This lower pre-tax income reduced the income tax burden to $42.2 billion from $50.3 billion in 1980. Altogether, the Group's total tax bill in 1981 was $6.6 billion higher than it was the year before, amounting to $81.5 billion. At that level, total 1981 taxes were equal to 2.8 times earnings, compared to 2.1 times earnings a year earlier. The tax figures included in this report are only those taxes imposed directly on the Group and do not include consumer sales and excise taxes collected by the companies and remitted to various local and national governments.

Net Income

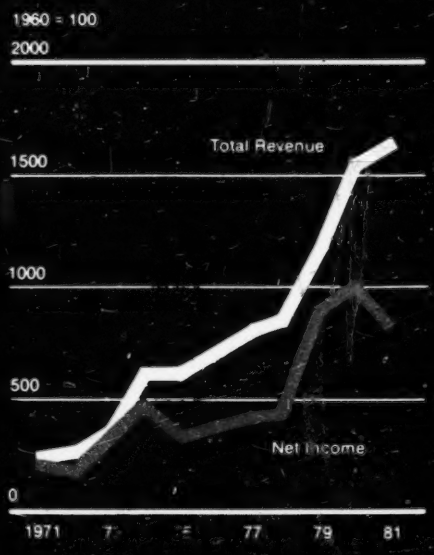
The funds remaining after accounting for all the expenses and other charges against revenue represent the Group's 1981 net income of $29.4 billion, down by $5.8 billion, or 16.4 percent, from the $35.2 billion earned in 1980. Net income in 1981 was 4.6 percent of total revenue, off considerably from the rate of 5.8 percent in 1980 and 6.8 percent in 1979. The profit decline occurred outside the United States where earnings plunged by 33.6 percent, to $13 billion from $19.6 billion in 1980. In the United States, net income of $16.4 billion was 5 percent higher than in 1980.

The Group's earnings for 1981 and 1980 in the United States and the rest of the world are compared in the following table.

Net Income

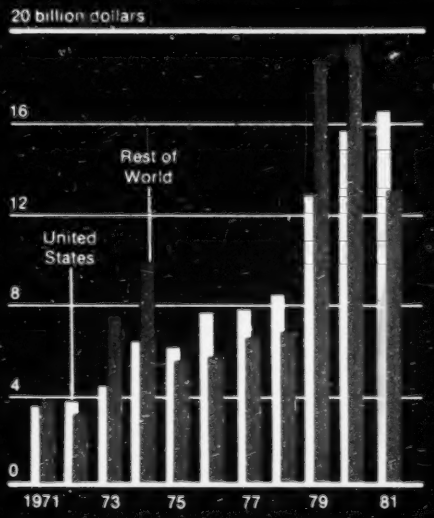
	1981	1980	Change	
	Million Dollars		Mill.$	Percent
United States	16,411	15,634	+ 777	+ 5.0
Rest of World	12,992	19,556	-6,564	-33.6
Total	29,403	35,190	-5,787	-16.4

NET INCOME RELATED TO TOTAL REVENUE

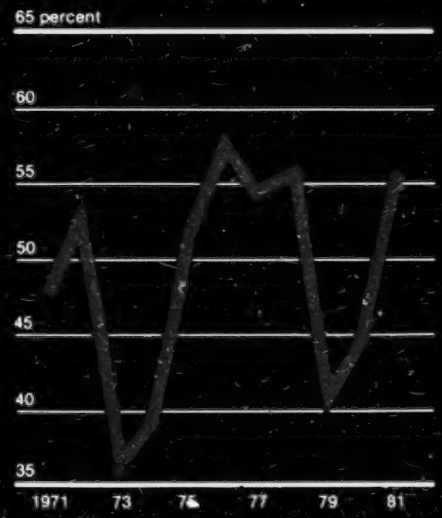


NET INCOME AS A PERCENT OF TOTAL REVENUE

NET INCOME UNITED STATES VERSUS REST OF WORLD

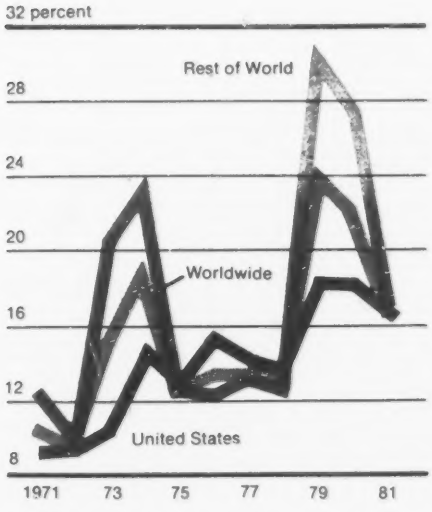


UNITED STATES AS A PERCENT OF TOTAL



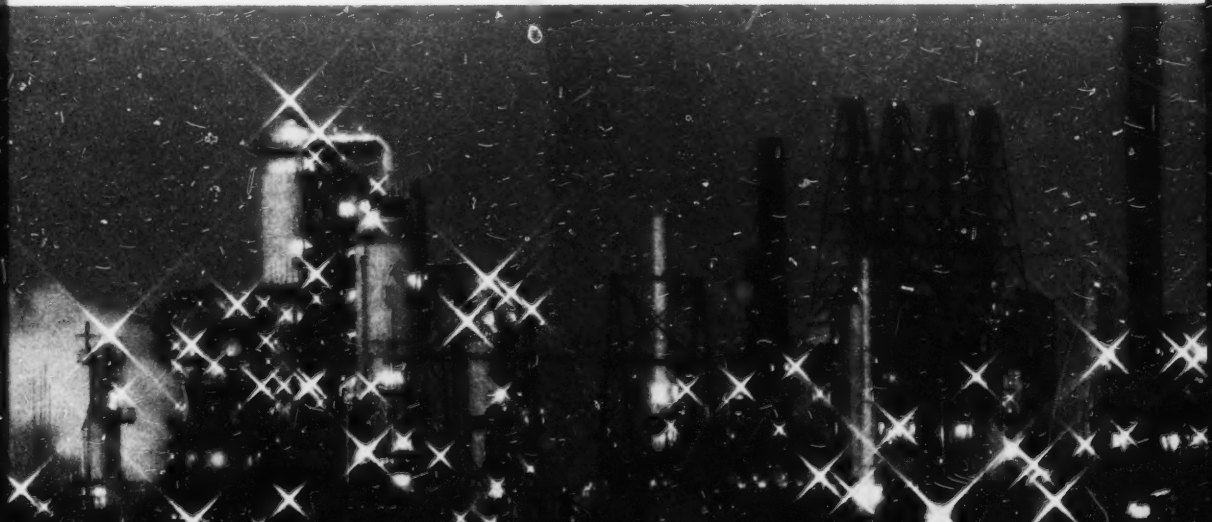
CASH EARNINGS COMPARED TO TOTAL FUNDS USED

RETURN ON AVERAGE INVESTED CAPITAL



Rate of Return

As a consequence of the sizeable reduction in profits, the Group's 1981 worldwide rate of return on average shareholder's equity dropped sharply to 16.8 percent from 22.4 percent in 1980. Outside the United States, which accounted for the decline in earnings, the drop in the rate of return was, of course, even more spectacular. It fell to 17.3 percent from 27.7 percent in 1980. In the United States, the return dropped from 18.1 percent in 1980 to 16.4 percent in 1981.



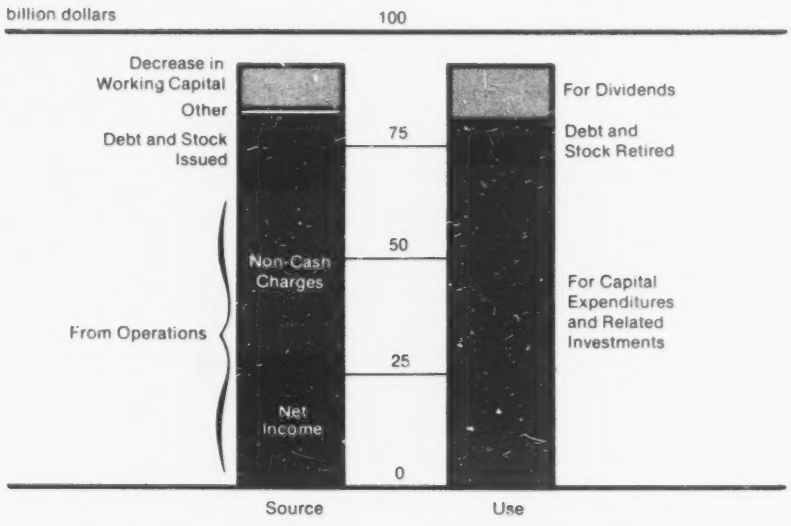
Source and Use of Funds

Sources

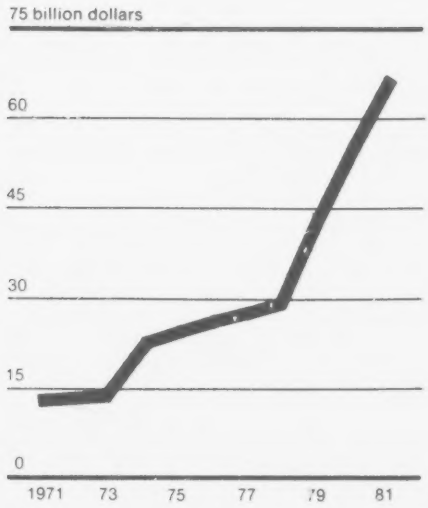
The funds available to the Group during 1981 to invest in new property, plant and equipment, to pay maturing debt obligations, and to pay shareholder dividends totaled $84.2 billion, slightly less than the $84.9 billion available in 1980. The lower earnings in 1981 accounted for 35 percent of the total, down from 41 percent a year earlier. The contribution from capital recovery provisions such as depreciation, depletion and amortization rose from 27 percent to 32 percent. Other non-cash charges provided about the same proportion as in 1980, roughly 11 percent. Combined, these internal sources represent 78 percent of the total available funds, one percentage point lower than the year before.

Turning to outside sources, the Group resorted to the capital markets for $17.4 billion, considerably more than in any other single year and substantially above the prior year's record of $12 billion. Of this $17.4 billion, $15.5 billion was in the form of long-term debt and $1.9 billion from the issuance of stock. Miscellaneous other transactions, including sales of assets, provided $1.4 billion.

SOURCE AND USE OF FUNDS IN 1981

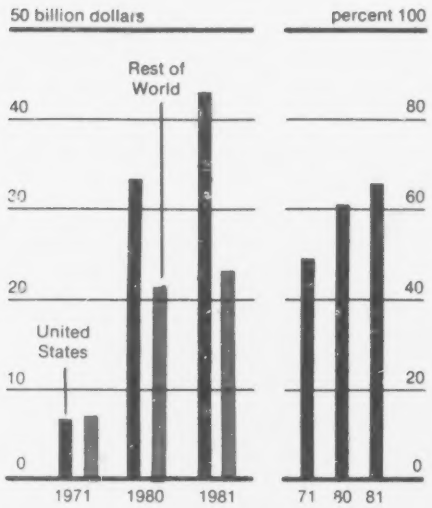


GROUP'S CAPITAL EXPENDITURES



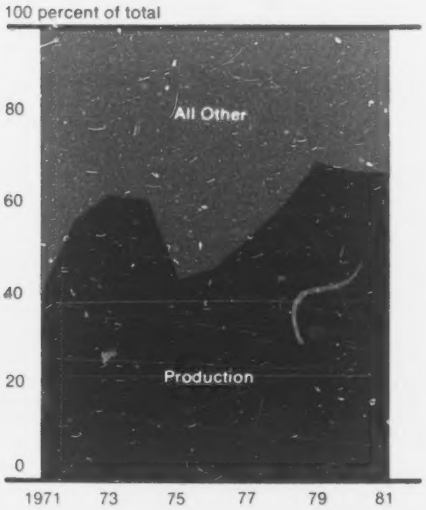
UNITED STATES AND REST OF WORLD

UNITED STATES SHARE



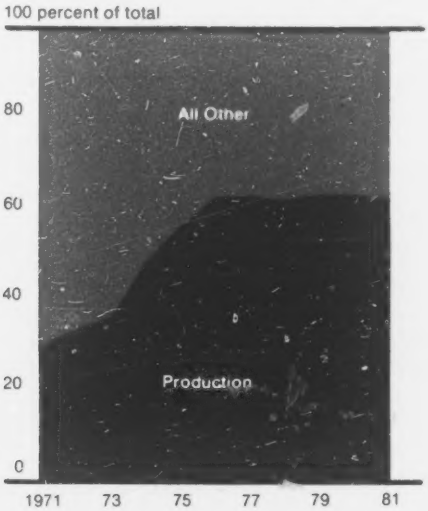
GROUP'S CAPITAL EXPENDITURES

United States



GROUP'S CAPITAL EXPENDITURES

Rest of World



Uses

Capital Expenditures

The Group's capital expenditures in 1981 for property, plant and equipment continued the dramatic expansion started two years earlier. In 1979, capital investments rose to $43.8 billion from $29.9 billion in 1978, then to $55.6 billion in 1980. In 1981 these outlays reached a level of $66.4 billion, an increase of $10.8 billion. Undoubtedly, the Group's capital investments would not have registered this extraordinary growth if there had not been a commensurate growth in earnings in 1979 and 1980. In 1981, the growth was funded in large part by increased net new long-term debt.

Two-thirds of the 1981 investment was allocated to the production segment for the purpose of finding and developing additional supplies of oil and gas. Totaling $44.2 billion, production expenditures were $7.2 billion higher than in 1980. The capital invested in the transportation category, however, declined somewhat from $2.4 billion to $2.1 billion as outlays for pipelines, tankers, and other transportation equipment were all reduced. Despite a low capacity utilization rate, due to the lower demand for refined products, the capital expended for refineries and petrochemical plants registered a gain of $1.6 billion to a total of $9.9 billion. Much of those funds, however, was spent for the purpose of increasing flexibility in processing, modernizing, and im-

proving efficiency rather than for expanding capacity. Capital outlays for marketing registered the smallest change from the year before, slipping to $3.2 billion from $3.3 billion. The Group also invested $7.1 billion for a variety of other petroleum-associated and non-petroleum interests, including coal, nuclear, oil shale, and other miscellaneous activities.

Approximately two-thirds of the Group's 1981 capital expenditures and 88 percent of the increase over the prior year were concentrated in the United States, as indicated by the following table.

Worldwide Capital Expenditures

	1981	1980	Change	
	Million Dollars		Mill. $	Percent
United States	43,292	33,725	+ 9,567	+28.4
Rest of World	23,154	21,881	+ 1,273	+ 5.8
Total	66,446	55,606	+10,840	+19.5

Representing 68 percent of the total funds invested in the United States, the expenditures allocated to finding and producing more crude oil and natural gas rose by $6.4 billion to a sum of $29.4 billion. The investment for refineries and chemical plants increased to a level of $6.3 billion, $1.5 billion higher than in 1980. The "Other" category increase primarily represents a jump in investments in other mineral activities. A breakdown of all investments in the United States on a functional basis in 1981 and 1980 is outlined in the table below.

United States Capital Expenditures

	1981	1980	Change	
	Million Dollars		Mill. $	Percent
Production	29,436	23,034	+6,402	+27.8
Transportation	1,435	1,597	- 162	-10.1
Refineries and Chemical Plants	6,295	4,789	+1,506	+31.4
Marketing	1,242	1,121	+ 121	+10.8
Other	4,884	3,184	+1,700	+53.4
Total	43,292	33,725	+9,567	+28.4

The Group's capital expenditures in the rest of the world were also dominated by the upstream, or production function. But the magnitude of the year-to-year changes was less significant than it was for the United States. Here, also, the "Other" category increased principally as a result of greater activity in minerals investment. The details are shown below.

Rest of World Capital Expenditures

	1981	1980	Change	
	Million Dollars		Mill. $	Percent
Production	14,734	13,981	+ 753	+ 5.4
Transportation	682	808	- 126	-15.6
Refineries and Chemical Plants	3,581	3,495	+ 86	+ 2.5
Marketing	1,970	2,150	- 180	- 8.4
Other	2,187	1,447	+ 740	+51.1
Total	23,154	21,881	+1,273	+ 5.8

Dividends and Other Uses

Dividend payments to stockholders rose modestly from $10 billion to $10.7 billion in 1981. As a result of this increase and because earnings were lower during the year, dividends as a proportion of earnings rose to 36.5 percent from 28.5 percent the year before.

Repayment of outstanding debt obligations falling due during the year absorbed $8.7 billion, about the same amount as last year, and another $1.3 billion was used to retire stock, up from $1 billion. The Group also used $4.9 billion for investments and advances to affiliated companies, nearly double the amount of the previous year. In summary, the funds utilized by the Group in 1981 totalled $92.8 billion. As indicated earlier, however, the various sources of funds provided only $84.2 billion. To compensate for that shortfall, the Group drew down its working capital, reducing it by $8.6 billion.

Balance Sheet

Working Capital

After registering significant increases in each of the two previous years, the drop in working capital in 1981 was the largest year-to-year decline on record. As shown in the table, the Group's working capital at the close of the year was reduced by 19.8 percent to $34.9 billion.

Working Capital

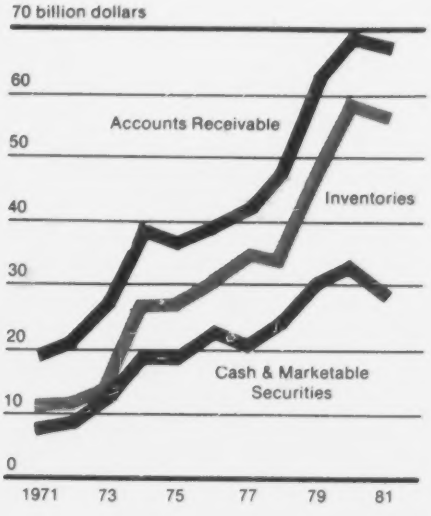
	12/31/81	12/31/80	Change	
	Million Dollars		Mill. $	Percent
Current Assets	158,375	165,781	-7,406	- 4.5
Current Liabilities	123,511	122,333	+1,178	+ 1.0
Working Capital	34,864	43,448	-8,584	-19.8
Current Ratio	1.28	1.36	—	—

The reduction in working capital stemmed largely from a decline in current assets. Marketable securities, the smallest major component of current assets, registered the largest decrease — $5.4 billion — to a level of $12.6 billion. Reflecting the trend in the latter part of the year toward maintaining lower petroleum inventories, the Group's inventory of crude oil and refined products dropped by more than $4.5 billion to $47.7 billion. Inventories of materials and supplies, however, rose by $2.2 billion, resulting in an overall inventory drop of $2.3 billion to a balance of $56.5 billion. The largest major segment of current assets, accounts and notes receivable, recorded the smallest decrease — $1.3 billion — slipping to $67.8 billion.

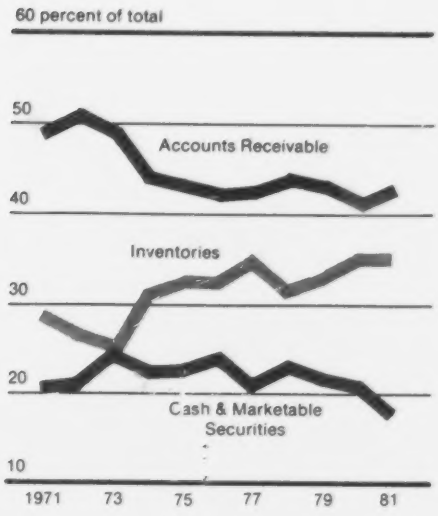
Accounts payable, which represents more than half the current liabilities, registered a gain of less than 1 percent in 1981, rising to $67.2 billion from $66.7 billion at the end of 1980. A $6 billion increase in notes and loans payable was offset by a drop in taxes payable of slightly more than that amount. In total, current liabilities rose insignificantly, by slightly over a billion dollars, to $123.5 billion.

As a result of the changes in working capital, the current ratio (ratio of current assets to current liabilities) slipped from 1.36 to a new all-time low of 1.28.

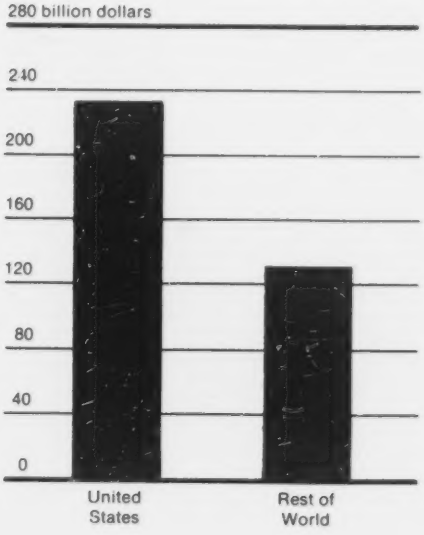
CURRENT ASSETS



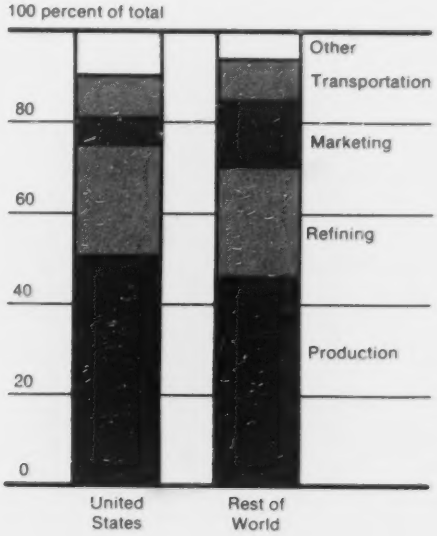
DISTRIBUTION OF CURRENT ASSETS



GROSS INVESTMENT IN FIXED ASSETS AT END OF 1981



BY SECTOR

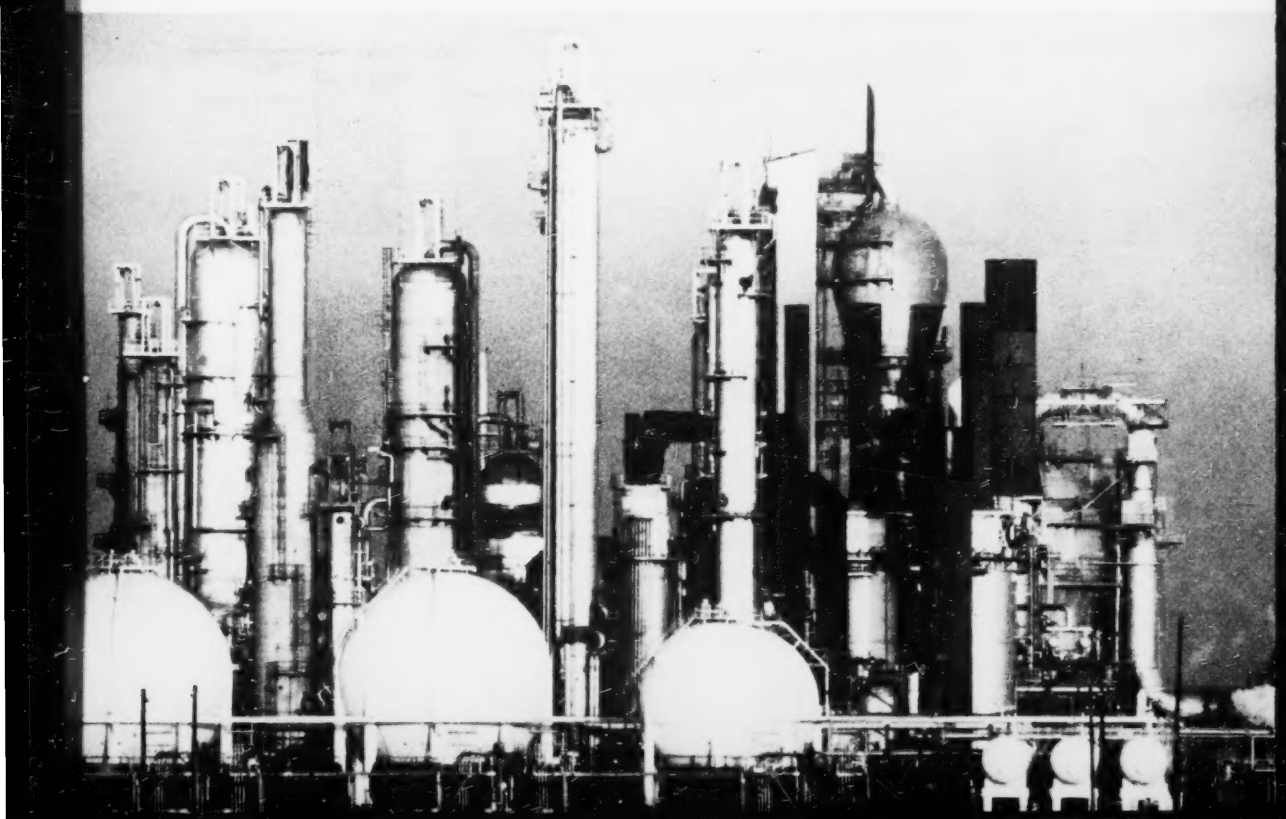


Capital Employed

The total capital employed by the Group at the end of 1981 amounted to $244.4 billion, $15.3 billion more than a year earlier. Approximately two-thirds of the gain occurred in the invested capital (shareholder's equity) portion, principally because of the reinvestment of a major portion of the year's earnings. The rest of the increase came from a $5.5 billion net expansion in long-term debt. Because long-term debt increased at a higher rate than the total capital employed, the Group's proportion of long-term debt to capital employed rose by one full percentage point to 21.5 percent. The changes in capital employed from 1980 to 1981 are shown below.

Capital Employed

	12/31/81	12/31/80	Change	
	Million Dollars		Mill. $	Percent
Long-Term Debt	52,504	46,997	+ 5,507	+11.7
Minority Interests	11,624	11,802	- 178	- 1.5
Invested Capital	180,240	170,263	+ 9,977	+ 5.9
Total Capital Employed	244,368	229,062	+15,306	+ 6.7



Statistical Tables

(All figures in tables represent an aggregate of the 25 companies which comprise the "Group". The companies included in this group are listed on Page 2.)

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Photographs used in this study were furnished through the courtesy of Mobil Oil Corporation.

SECTION ONE — HISTORICAL DATA

A Income Statement

	1970	1971	1972	1973
	Million Dollars			
Total Revenue	86,125	97,860	106,278	133,909
Deductions:				
Operating Costs and Other Expenses	62,615	70,690	76,465	92,756
Taxes Other Than Income Taxes	4,473	4,413	5,138	6,241
Write-offs	6,636	7,079	7,514	8,345
Income Taxes	5,763	8,409	10,301	14,889
Total Deductions	79,487	90,591	99,418	122,231
Net Income — Worldwide	6,638	7,269	6,860	11,678
United States	3,609	3,490	3,656	4,134
Rest of World	3,029	3,779	3,204	7,544

B Rates of Return *

Average Shareholders' Equity — Worldwide	10.4	10.7	9.7	15.5
United States	9.9	9.3	9.6	10.5
Rest of World	11.0	12.5	9.9	20.9
Average Capital Employed	9.9	10.1	9.4	14.0
Average Total Assets	6.2	6.3	5.5	8.6
Average Gross Fixed Assets	15.4	17.4	18.6	24.6

*See page 28 for components included in rates of return calculations.

C Source and Use of Working Capital

Funds Available From:				
Cash Earnings (a)	13,823	14,775	14,801	21,230
Long-Term Debt and Stock Issued	4,571	5,163	4,698	4,813
Sale of Assets and Other Transactions	1,067	885	1,860	2,867
Total	19,461	20,823	21,359	28,910
Funds Used For:				
Capital Expenditures	12,025	12,921	13,190	14,637
Investments and Advances	804	992	763	382
Dividends	3,790	3,922	3,860	4,122
Long-Term Debt and Stock Retired	2,191	2,100	3,330	4,268
Total	18,810	19,935	21,143	23,409
Change in Working Capital	+ 651	+ 888	+ 216	+ 5,501

(a) Represents Net Income, Writeoffs and Other Non-Cash Charges.

1974	1975	1976	1977	1978	1979	1980	1981
			Million Dollars				
244,535	245,204	275,908	317,520	346,880	463,449	602,873	645,554
178,438	185,707	217,800	252,068	276,456	354,694	470,112	507,476
7,214	9,137	8,516	9,986	11,841	15,456	24,611	39,324
10,133	11,187	11,230	12,982	15,570	19,089	22,659	27,149
32,379	27,663	25,263	28,104	27,996	42,732	50,301	42,202
228,164	233,694	262,809	303,140	331,863	431,971	567,683	616,151
16,371	11,510	13,099	14,380	15,017	31,478	35,190	29,403
6,401	5,978	7,535	7,795	8,336	12,758	15,634	16,411
9,970	5,532	5,564	6,585	6,681	18,720	19,556	12,992
19.2	12.8	13.8	13.8	13.2	24.0	22.4	16.8
14.6	12.9	15.2	14.2	13.8	18.2	18.1	16.4
23.9	12.7	12.3	13.4	12.5	30.8	27.7	17.3
17.3	12.0	12.9	13.0	13.1	21.6	20.6	16.4
10.0	6.1	6.6	6.4	6.1	11.0	10.2	7.6
37.6	30.0	28.0	27.8	25.8	35.2	34.1	27.3
28,836	23,570	26,767	29,964	34,322	57,456	66,834	65,409
6,394	10,305	10,526	8,768	5,241	8,802	11,958	17,435
4,372	1,167	2,713	4,415	5,252	7,177	6,078	1,408
39,602	35,042	40,006	43,147	44,815	73,435	84,870	84,252
22,902	25,048	26,826	28,001	29,893	43,812	55,606	66,446
914	1,744	832	1,523	1,567	2,495	2,619	4,877
4,772	4,947	5,346	6,158	6,953	8,333	10,562	11,427
4,226	5,435	5,313	6,053	7,081	8,374	9,781	10,086
32,814	37,174	38,317	41,735	45,494	63,014	78,568	92,836
+ 6,788	− 2,132	+ 1,689	+ 1,412	− 679	+10,421	+ 6,302	− 8,584

D Expenditures for Fixed Assets

	1970	1971	1972	1973
	Million Dollars			
United States:				
Crude Oil and Natural Gas (a)	2,821	2,510	3,842	4,729
Natural Gas Liquids Plants	189	156	115	120
Pipe Lines	292	275	193	240
Marine	79	97	58	86
Other Transportation	56	76	53	63
Refineries and Chemical Plants	1,509	1,430	1,212	1,269
Marketing	1,319	1,322	1,001	744
Other	372	399	337	350
Total	6,637	6,265	6,811	7,601
Rest of World:				
Crude Oil and Natural Gas (a)	1,578	1,917	2,088	2,564
Natural Gas Liquids Plants	187	175	114	76
Pipe Lines	53	151	118	90
Marine	502	735	826	1,463
Other Transportation	3	7	6	9
Refineries and Chemical Plants	1,673	2,180	1,819	1,573
Marketing	1,194	1,348	1,222	1,079
Other	198	143	186	182
Total	5,388	6,656	6,379	7,036

(a) Excludes exploration expenses and lease rentals charged to income account.

E Balance Sheet

Current Assets	36,501	39,586	42,686	56,149
Property, Plant and Equipment (Net)	66,703	71,740	75,097	79,613
Other Assets	11,763	13,573	14,400	14,654
Total Assets	114,967	124,899	132,183	150,416
Current Liabilities	23,459	25,656	28,540	36,502
Long-Term Debt	17,742	20,523	21,858	22,727
Other Liabilities	5,145	5,882	6,998	8,532
Minority Interests	2,845	2,941	3,031	3,274
Shareholders' Equity	65,776	69,897	71,756	79,381
Total Liabilities & Net Worth	114,967	124,899	132,183	150,416
Working Capital	13,042	13,930	14,146	19,647
Current Ratio	1.6	1.5	1.5	1.5
Debt to Total Capital Employed (percent)	20.5	22.0	22.6	21.6

1974	1975	1976	1977	1978	1979	1980	1981
			Million Dollars				
8,142	6,205	7,708	8,762	10,066	18,799	22,451	28,717
183	243	251	238	287	358	583	719
1,282	3,300	3,327	1,537	338	337	717	508
73	144	190	444	182	285	484	563
74	85	148	128	234	316	396	364
2,382	3,014	3,659	3,328	3,395	3,941	4,789	6,295
541	574	512	650	740	823	1,121	1,242
733	845	869	1,534	1,561	2,265	3,184	4,884
13,410	14,410	16,664	16,621	16,803	27,124	33,725	43,292
4,576	5,957	6,265	6,935	8,012	10,597	13,866	14,625
139	132	196	304	237	71	115	109
85	73	22	48	48	27	61	67
1,672	1,319	883	679	319	519	732	593
13	25	8	5	15	79	15	22
1,895	1,957	1,646	1,864	2,311	2,672	3,495	3,581
947	891	921	1,106	1,457	1,692	2,150	1,970
165	284	221	439	691	1,031	1,447	2,187
9,492	10,638	10,162	11,380	13,090	16,688	21,881	23,154
86,889	84,361	92,598	99,149	107,416	144,764	165,781	158,375
91,169	99,027	110,493	128,555	147,147	173,646	206,610	234,045
15,189	18,178	19,056	21,044	20,727	22,127	27,202	31,481
193,247	201,566	222,147	248,748	275,290	340,537	399,593	423,901
60,454	60,058	66,606	71,745	80,691	107,618	122,333	123,511
25,591	30,645	36,249	39,914	40,645	43,397	46,997	52,504
11,394	13,989	16,671	22,414	28,499	36,261	48,198	56,022
4,068	3,701	3,916	4,676	7,035	9,338	11,802	11,624
91,740	93,173	98,705	109,999	118,420	143,923	170,263	180,240
193,247	201,566	222,147	248,748	275,290	340,537	399,593	423,901
26,435	24,303	25,992	27,404	26,725	37,146	43,448	34,864
1.4	1.4	1.4	1.4	1.3	1.4	1.4	1.3
21.1	24.0	26.1	25.8	24.5	22.1	20.5	21.5

SECTION TWO — CURRENT DATA

1 Source of Crude Oil

	1981	1980	Change TBD	Change Percent
	Thousand Barrels Per Day			
United States	5,932	6,071	— 139	— 2.3
Canada	846	1,044	— 198	— 19.0
Venezuela	483	653	— 170	— 26.0
Other Western Hemisphere	526	574	— 48	— 8.4
Western Hemisphere	7,787	8,342	— 555	— 6.7
Europe	1,837	1,710	+ 127	+ 7.4
Africa	1,768	2,235	— 467	— 20.9
Middle East	8,544	10,148	—1,604	— 15.8
Far East	1,334	1,366	— 32	— 2.3
Eastern Hemisphere	13,483	15,459	—1,976	— 12.8
Total World-wide (a)	21,270	23,801	—2,531	— 10.6

Note: The above figures include 100% of operations of companies and consolidated subsidiaries and equity in foreign operations of non-consolidated affiliates based on percentage of stock ownership, plus purchases from governments.

(a) Figures expressed in million barrels are as follows:

	1981	1980
United States	2,165	2,222
Other Countries	5,598	6,449
Total	7,763	8,711

2 Crude Runs To Refineries

	1981	1980	Change TBD	Change Percent
	Thousand Barrels Per Day			
United States	9,877	10,874	— 997	— 9.2
Canada	1,375	1,559	— 184	— 11.8
Venezuela	0	0	0	0
Other Western Hemisphere	1,421	1,585	— 164	— 10.3
Western Hemisphere	12,673	14,018	—1,345	— 9.6
Europe	6,208	7,450	—1,242	— 16.7
Africa	305	317	— 12	— 3.8
Middle East	187	269	— 82	— 30.5
Far East	2,567	2,638	— 71	— 2.7
Eastern Hemisphere	9,267	10,674	—1,407	— 13.2
Total World-wide (a)	21,940	24,692	—2,752	— 11.1

Note: The above figures include 100% of operations of companies and consolidated subsidiaries and equity in foreign operations of non-consolidated affiliates based on percentage of stock ownership.

(a) Figures expressed in million barrels are as follows:

	1981	1980
United States	3,605	3,980
Other Countries	4,403	5,057
Total	8,008	9,037

3 Income Statement

	1981	1980	Percent Change
	Million Dollars		
Gross Operating Revenue	632,251	590,536	+ 7.1
Non-Operating Revenue	13,303	12,337	+ 7.8
Total Revenue	645,554	602,873	+ 7.1
Operating Costs and Expenses	498,029	461,508	+ 7.9
Taxes Other than Income Taxes (a)	39,324	24,611	+ 59.8
Write-offs	27,149	22,659	+ 19.8
Interest Expense	7,701	6,052	+ 27.2
Other Charges	54	— 5	—
Total Deductions	572,257	514,825	+ 11.2
Net Income before Income Taxes	73,297	88,048	— 16.8
Estimated Income Taxes	42,202	50,301	— 16.1
Income Applicable to Minority Interests	1,692	2,557	— 33.8
Net Income (b) (c)	29,403	35,190	— 16.4

(a) Excludes $46,165 million in 1981 and $54,055 million in 1980 representing sales and excise taxes on gasoline and other refined products, which are collected from customers and accounted for to United States federal, state and city authorities, and to other governments. Such taxes are deducted before arriving at gross operating revenue.

(b) Excludes $1,016 million of extraordinary profit in 1981 and $477 million in 1980.

(c) Includes earnings from operations outside U.S.: 1981 — $12,992 million and 1980 — $19,556 million.

4 Distribution of Total Revenue Dollar

	1981	1980
	Cents	
Operating Costs and Expenses	77.1	76.6
Write-offs	4.2	3.8
Interest	1.2	1.0
All Taxes	12.6	12.4
Income Applicable to Minority Interests	0.3	0.4
Dividends to Stockholders	1.7	1.6
Reinvested in Business	2.9	4.2
Total Revenue	100.0	100.0

SECTION TWO — CURRENT DATA

5 Rates of Return

	1981	1980
	Million Dollars	
Average Capital Employed (a)	236,715	212,860
Earnings (b)	38,796	43,799
Return	16.4%	20.6%
Average Shareholders' Equity (c)	175,251	157,093
Earnings (d)	29,403	35,190
Return	16.8%	22.4%
Average Total Assets	411,747	370,065
Earnings (e)	31,095	37,747
Return	7.6%	10.2%
Average Gross Fixed Assets	347,242	305,806
Gross Operating Profit (f)	94,898	104,417
Return	27.3%	34.1%

(a) Includes long-term debt, preferred stock, common stock, surplus and equity of minority interests.

(b) Represents net income plus interest charges and income applicable to minority interests.

(c) Includes preferred stock, common stock and surplus.

(d) Represents net income.

(e) Represents net income plus income applicable to minority interests.

(f) Represents gross operating revenue less operating costs and expenses and taxes — other than income taxes.

6 Source and Use of Working Capital Year 1981

	Million Dollars	Percent Distribution
Funds Available From:		
Cash Earnings (a)	65,409	77.6
Long-Term Debt Issued	15,556	18.5
Preferred and Common Stock Issued	1,879	2.2
Sales of Assets and Other Transactions	1,408	1.7
Total	84,252	100.0
Funds Used For:		
Capital Expenditures	66,446	78.9
Investments and Advances	4,877	5.8
Dividends to Companies' Shareholders	10,737	12.7
Dividends to Minority Interests	690	.8
Long-Term Debt Repaid	8,738	10.4
Preferred and Common Stock Retired	1,348	1.6
Total	92,836	110.2
Change in Working Capital	−8,584	−10.2

(a) Represents:

	Million Dollars
Net Income	29,403
Write-offs	27,149
Other Non-Cash Charges (net)	8,857
Cash Earnings	65,409

7 Expenditures for Fixed Assets Year 1981

By Function —	United States	Other Countries	Combined
	Million Dollars		
Production:			
Crude Oil and Natural Gas (a)	28,717	14,625	43,342
Natural Gas Liquids Plants	719	109	828
Total	29,436	14,734	44,170
Transportation:			
Pipe Lines	508	67	575
Marine	563	593	1,156
Other	364	22	386
Total	1,435	682	2,117
Refineries and Chemical Plants	6,295	3,581	9,876
Marketing	1,242	1,970	3,212
Others	4,884	2,187	7,071
Total	43,292	23,154	66,446

(a) Excludes exploration expenses and lease rentals charged to income account.

By Area —	1981	1980	1979	1978
	Million Dollars			
United States	43,292	33,725	27,124	16,803
Canada	3,269	3,469	3,341	2,386
Venezuela	0	0	0	0
Other Western Hemisphere	1,363	910	618	734
Western Hemisphere	47,924	38,104	31,083	19,923
Europe	11,685	12,190	8,843	7,191
Africa	2,351	1,826	1,416	1,122
Middle East	449	433	724	428
Far East	4,037	3,053	1,746	1,229
Eastern Hemisphere	18,522	17,502	12,729	9,970
Total	66,446	55,606	43,812	29,893

8 Capital and Exploration Expenditures Year 1981

	United States	Other Countries	Combined
	Million Dollars		
Production Expenditures*	25,484	12,116	37,600
Dry Holes	3,233	2,509	5,742
Total	28,717	14,625	43,342
Geological and Geophysical Expenses and Lease Rentals	4,048	2,561	6,609
Total Production and Exploration Cost	32,765	17,186	49,951
Other Capital Expenditures	14,575	8,529	23,104
Other Mining Expenses	260	245	505
Capital and Exploration Expenditures	47,600	25,960	73,560

*Excludes expenditures for Natural Gas Liquids Plants.

SECTION TWO — CURRENT DATA

9 Balance Sheet

Assets	12/31/81	12/31/80	12/31/81 Percent Distribution	12/31/80 Percent Distribution
	Million Dollars			
Current Assets	158,375	165,781	37.4	41.5
Investments and Advances	20,406	18,795	4.8	4.7
Property, Plant and Equipment (a)	234,045	206,610	55.2	51.7
Other Assets	11,075	8,407	2.6	2.1
Total Assets	423,901	399,593	100.0	100.0
Liabilities and Net Worth				
Current Liabilities	123,511	122,333	29.1	30.6
Long-Term Debt	52,504	46,997	12.4	11.8
Deferred Credits	42,146	34,837	9.9	8.7
Other Reserves	13,876	13,361	3.3	3.3
Minority Interests	11,624	11,802	2.8	3.0
Shareholders' Equity:				
Preferred Stock	471	366	0.1	0.1
Common Stock	11,982	12,614	2.8	3.2
Capital Surplus	10,994	10,611	2.6	2.6
Earnings Reinvested in Business	156,793	146,672	37.0	36.7
Shareholders' Equity	180,240	170,263	42.5	42.6
Total Liabilities and Shareholders' Equity	423,901	399,593	100.0	100.0

(a) After deducting accumulated reserves of $131,096 million in 1981 and $122,732 million in 1980.

10 Earnings Reinvested and Employed

	Million Dollars
Balance at December 31, 1980	146,672
Add: Net Income	29,403
	176,075
Less: Cash Dividends	10,737
Stock Dividends	0
Other Charges	8,545
Balance at December 31, 1981	156,793

11 Net Assets Year 1981

	United States	Other Countries	Combined
	Million Dollars		
Working Capital	13,689	21,175	34,864
Investments and Advances	8,847	11,559	20,406
Property, Plant and Equipment (a)	148,245	85,800	234,045
Other Assets	7,355	3,720	11,075
	178,136	122,254	300,390
Less: Long-Term Debt	36,435	16,069	52,504
Other Reserves and Credits	28,570	27,452	56,022
Minority Interests	7,465	4,159	11,624
Preferred Stock	418	53	471
Total Net Assets	105,248	74,521(b)	179,769
Percent Distribution	58.5	41.5	100.0

(a) After deducting accumulated reserves of $85,121 million for United States facilities and $45,975 million for facilities of other countries.

(b) Distribution by areas:

	Million Dollars	Percent of Total
Western Hemisphere	17,173	23.0
Eastern Hemisphere	57,348	77.0
Total	74,521	100.0

12 Working Capital

	12/31/81	12/31/80	Change	12/31/81	12/31/80
	Million Dollars			Percent Distribution	
Cash	15,699	15,661	+ 38	9.9	9.5
Marketable Securities	12,561	17,973	− 5,412	7.9	10.8
Accounts and Notes Receivable (net)	67,819	69,096	− 1,277	42.8	41.7
Inventories:					
Crude Oil, Refined Products and Other Merchandise	48,343	52,869	− 4,526	30.5	31.9
Materials and Supplies	8,200	5,985	+ 2,215	5.2	3.6
All Other	5,753	4,197	+ 1,556	3.7	2.5
Total Current Assets	158,375	165,781	− 7,406	100.0	100.0
Accounts Payable	67,223	66,664	+ 559	54.4	54.5
Notes and Loans Payable	23,018	16,988	+ 6,030	18.6	13.9
Income and Other Taxes	19,248	25,735	− 6,487	15.6	21.0
All Other	14,022	12,946	+ 1,076	11.4	10.6
Total Current Liabilities	123,511	122,333	+ 1,178	100.0	100.0
Working Capital	34,864	43,448	− 8,584	—	—
Ratio of C.A. to C.L.	1.28	1.36	—	—	—

SECTION TWO — CURRENT DATA

13 Investment in Fixed Assets December 31, 1981

By Function —	Gross			Net		
	United States	Other Countries	Combined	United States	Other Countries	Combined
	Million Dollars			Million Dollars		
Production:						
Crude Oil and Natural Gas	124,785	59,024	183,809	76,393	42,305	118,698
Natural Gas Liquids Plants	4,818	1,817	6,635	2,530	1,117	3,647
Total	129,603	60,841	190,444	78,923	43,422	122,345
Transportation:						
Pipe Lines	14,697	814	15,511	10,207	454	10,661
Marine	4,098	10,448	14,546	2,355	6,863	9,218
Other	2,579	280	2,859	1,441	201	1,642
Total	21,374	11,542	32,916	14,003	7,518	21,521
Refineries and Chemical Plants	47,484	32,391	79,875	29,595	18,037	47,632
Marketing	12,587	19,377	31,964	7,828	10,801	18,629
Others	22,318	7,624	29,942	17,896	6,022	23,918
Total	233,366	131,775	365,141	148,245	85,800	234,045

By Area —	12/31/81		12/31/80	
	Gross	Net	Gross	Net
	Million Dollars		Million Dollars	
United States	233,366	148,245	200,986	124,016
Canada	21,101	14,132	21,995	14,904
Venezuela	11	2	11	3
Other Western Hemisphere	6,942	4,178	6,623	3,515
Western Hemisphere	261,420	166,557	229,615	142,438
Europe	78,708	51,519	76,965	50,268
Africa	8,253	5,028	8,372	5,128
Middle East	2,052	918	2,304	1,000
Far East	14,708	10,023	12,086	7,776
Eastern Hemisphere	103,721	67,488	99,727	64,172
Total	365,141	234,045	329,342	206,610

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Financial Analysis of a Group of Petroleum Companies 1982

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1982

Financial Analysis of a Group of Petroleum Companies

by **Rantch Isquith**, *Vice President*
Richard S. Dobias, *Second Vice President*
Norma J. Anderson, *Assistant Treasurer*

Energy Economics, April, 1984

Amerada Hess Corporation
Ashland Oil, Inc.
Atlantic Richfield Company
The British Petroleum Company Limited
Champlin Petroleum Company
Cities Service Company
Compagnie Francaise des Petroles
Exxon Corporation
Getty Oil Company
Gulf Oil Corporation
The Louisiana Land and Exploration Company
Marathon Oil Company
Mobil Oil Corporation
Murphy Oil Corporation
Petrofina Societe Anonyme
Phillips Petroleum Company
Royal Dutch/Shell Group of Companies
Standard Oil Company of California
Standard Oil Company (Indiana)
Sun Company, Inc.
The Superior Oil Company
Texaco Inc.
Tosco Corporation
Union Oil Company of California

Tnis study is based on data secured from annual reports to stockholders and to the Securities and Exchange Commission and on information deveioped from other sources. Energy Economics of The Chase Manhattan Bank wishes to thank the companies and individuals who have cooperated in supplying special information and material used in this survey.

Additional copies may be obtained from:
Energy Economics
The Chase Manhattan Bank, N.A.
1 Chase Manhattan Plaza, New York, N.Y. 10081

For many years The Chase Manhattan Bank has conducted a detailed study of the financial performance of the larger non-OPEC petroleum companies. Because the aggregate operations of these companies constitute a significant proportion of the worldwide activities of the petroleum industry, an analysis of their combined financial performance provides an important part of the analysis of the entire worldwide industry.

The companies included in this study are the 24 organizations listed on the adjoining page. Throughout the report they are referred to collectively as the "Group." Over the years the number of companies comprising the Group has changed as a result of additions and mergers. Data for earlier years have been adjusted to reflect major changes and thereby permit valid comparisons of current developments with those of the past.

The study is based on data secured from annual reports to stockholders and to the U.S. Securities and Exchange Commission, as well as on information developed from other sources. The use of these multiple data sources permits us to present, in a consistent time series format, certain information that is not easily obtainable from any one source.

Some of the unique aspects of the report include:

- Operating data that cover, for each of the companies included, the complete operations of the parent company and all consolidated subsidiaries, plus a portion of the foreign operations of non-consolidated affiliates, with the portion based on the percentage of stock ownership.
- Reported net income that has been adjusted for extraordinary items in order to better reflect earnings from normal activities.
- Net income and rates of return, shown separately for the U.S. and the rest of the world.
- Estimates of all net assets, shown separately for the U.S. and the rest of the world.
- Investment in fixed assets, shown according to both function and regional location of the assets.

As a service to the petroleum industry, and all others with a related interest, the Bank has published annually since 1945 the summarized results of this study.

Source of Crude Oil

The overall demand for crude oil and refined products in the non-Communist world during 1982 continued to be negatively impacted by the strong recessionary conditions of the world economy and by price-induced energy conservation measures. The lower demand for products, together with widespread anticipation of price declines, prompted a draw down of inventories in the petroleum industry. As a consequence, the Group's supply of crude oil during 1982, defined to include that obtained from both equity production and through purchases from governments of oil-producing countries, declined by 3.2 million barrels a day to 17.7 million. As a proportion of all the oil produced in the non-Communist world in 1982, this volume represents approximately 46 percent, down from 50 percent a year earlier.

By far the largest reduction in the supply of crude oil to the Group in 1982 occurred in the Middle East. The volume from that area dropped by nearly 3 million barrels per day to 5.5 million daily and accounted for 31 percent of the Group's total supply, down from 40 percent in 1981. As recently as 1978, and for a number of years prior, the Middle East alone provided the Group with more than half its supply of oil. The peak volume was reached in 1974, when more than 18 million barrels per day of Middle East oil was made available. The next largest reduction in 1982 was registered in Africa, where the supply averaged 1.2 million barrels a day, 445 thousand less than the year before. The other areas with lower volumes were the Far East and Canada with 137 thousand and 40 thousand barrels less per day, respectively.

In 1982 the United States regained the position of being the largest single supplier of crude oil to the Group for the first time since the late 1960's. However, the Group's production in the United States during 1982 increased by only 1 percent, to 5.8 million barrels a day, representing 33 percent of the total. Europe recorded the largest gain — 224 thousand barrels per day — as additional production from the North Sea boosted the Group's European oil output to a daily average of 2 million barrels. From the two remaining areas — Venezuela and Other